

generating a digital control signal based on the comparison;
and

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controlling an operation of the modulator circuit by means of
the digital control signal, wherein at least one reference
level in the modulator circuit is changed by use of the
digital control signal.

REMARKS

1. Claim 5 is amended. Claims 20-23 are new. A marked-up version of the amended claim is attached hereto.
2. Claim 5 is amended to address the Examiner's objection. The term should be the "signal proportional to the previous digital input signal" referred to in Claim 1, lines 3-4.
3. Claim 20 is representative of Claim 7 rewritten into independent form including all of the limitations of the base claim. It is submitted that, as indicated by the Examiner, Claim 20, and dependent Claims 21 and 22, should be allowable.
4. It is respectfully submitted that claims 1-19 are not anticipated by Nielsen (Fig. 3) under 35 U.S.C. §102(e).

In Applicant's invention according to Claims 1, 11 and 18, the feedback is via a comparator. This is not disclosed or suggested by Nielsen. In Nielsen, a modulator and a comparator are mentioned, but the comparator is actually part of the modulator, as can be seen from Fig. 10. As shown in Fig. 10, the comparator is the last stage of the modulator. In addition, in Nielsen, the preferred method is characterized by having "a

non-hysteresis comparator as a modulator." (Col. 8, lines 56-58.) Further comparison of the circuitry reveals that the comparator is also used differently by Nielsen than in Applicant's invention since in Applicant's invention, the comparator 305 is part of the feedback loop. See for example, Figs. 3, 4 and 10. In Applicant's invention, the comparator 305 is shown as an independent block, used to control the properties of the modulator itself. Thus, the order and application of elements of Applicant's invention is not the same as, and is not disclosed or suggested by Nielsen. Particularly, Nielsen does not disclose or suggest a digital control signal (307) that controls the operation of the modulator circuit (301). Therefore, Claims 1, 11 and 18 are not anticipated by Nielsen under 35 U.S.C. §102(e). By reason of their dependencies, Claim 2-10, 12-17, and 19-20, which depend from one of Claims 1, 11 and 18, are also not anticipated.

5. Claims 1 and 13 are not anticipated by Nielsen (Fig. 2) under 35 U.S.C. §102(e).

As noted above, Claims 1 and 11 are not anticipated by Nielsen (Fig. 3). Fig. 2 of Nielsen does not overcome the deficiencies noted above. In particular, Nielsen, Fig. 2, fails to disclose or suggest a digital control signal (307) generated by comparison of a feedback to the digital input signal (IN) and a signal generated in the audio output stage, which is proportional to a previous digital input signal, as recited in Claims 1 and 11. Therefore, these claims cannot be anticipated by Nielsen (Fig. 2) under 35 U.S.C. §102(e). Claim 13 depends from Claim 11 and should be allowable in view of the dependency.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

A check in the amount of \$ 186.00 is enclosed for the additional claim fee. The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,


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9/19/02
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Application No.: 09/716,881

Marked Up Claim

5. (Amended) The method according to claim 1, characterized in that in the feedback circuit, the signal proportional to the [a] previous digital input signal is synchronized with the clock frequency of the input signal (IN).